

Okumuş, Hacer Şaduman

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Performance assessment of participation banks based on Maqasid al-Shari'ah framework: Evidence from Türkiye

H. Şaduman Okumuş

Doğuş University, Faculty of Economics and Administrative Sciences, Department of Business Administration, İstanbul, Türkiye

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ABSTRACT

In a dual banking system, participation banks (PBs) are expected to follow Islamic principles, morals, and ethical norms, all of which ultimately align with Maqasid al-Sharia'ah (MS). This study aimed to assess performance of PBs in Türkiye beyond traditional yardsticks to accentuate their ethical, social, and financial roles compliant with the axioms of MS. A mixed method deploying qualitative and quantitative inquiry was used. The first stage used text mining, and the second stage developed the MS Performance Index (MSPI) by adopting entropy weights based on the Ghazalian perspective. The datasets were derived from 18 reports for 2019–2021. Türkiye Finans appeared to have the highest score, whereas Ziraat received the lowest on MSPI scores. PBs achieved the highest scores for the wealth objective component and the lowest score for the intellect component because they became market-oriented and thus their disclosures did not support and promote MS.

1. Introduction

Islamic banking and financial institutions emerged in the mid-1970s to meet the financial needs of Muslims while following a religious construction. These institutions were formed in line with Islamic principles, morals, and ethical norms, producing added value for society. The normative nature of the operations of Islamic financial institutions (IFIs) is determined by the axioms of the Islamic moral economy (IME), and legal rulings in the form of Shari'ah injunctions shape the IFI operational habitat. As such, IFI products and services are naturally expected to meet the objectives of Shari'ah or Maqasid al-Shari'ah (MS), which is defined as “promoting human and social well-being.” However, IFIs have failed to achieve the aspirations of IME in terms of contributing to societal development through ethical banking and investment (Chapra, 2007; El-Gamal, 2006; Mergaliyev et al., 2021; Mirakhor & Bao, 2013; Mohammed et al., 2008; Zaman & Asutay, 2016; Çizakça, 2013).

IFIs in Türkiye were established to offer interest-free financial products in the mid-1980s with the hope that they would attract Gulf-oriented funds into the country seeking investment opportunities in compliance with Islamic principles. However, despite Türkiye's Muslim identity, the attitude of the Turkish government toward IFIs or Islamic

banking can historically be defined as “hesitant” or “timid.” The hesitant or rather inconsistent political will associated with IFIs could be justified by the laicist attitude of the Turkish establishment, which undermined the efficient orientation of the economic and financial choices of Islamic banking/finance in the period before 2002—that is, the pre-AKP (Justice and Development Party) period.¹ Yet the rise of an Islamic-friendly AKP government in the 2002 election was expected to trigger the expansion of participation banking or finance in Türkiye. This would be achieved with the help of new religiocapitalists (Islamic businessmen) as well as conservative households accumulating their wealth through new opportunities created in an Islamic-friendly political environment. It was expected that these business circles and new wealth would utilize participation banking products/services as part of their religiopolitical culture. Although the current government's regulatory provisions have contributed to the development of participation banking, it was expected that it would undertake further expansionary policies and attract more Islamic finance into the country. In addition, with many specialists within the economic and financial bureaucracy of the country, it seems that a long-awaited positive environment for the development of participation banking has been established over the past two decades (Asutay, 2012; Çizakça, 2014). To this end, it appears that the external political concerns once hampering the development of participation

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E-mail address: hokumus@dogus.edu.tr.

¹ Although inconsistent with international literature, this paper uses participation banks (PBs) and participation banking in the text rather than Islamic banks or Islamic financial institutions (IFIs) and Islamic banking.

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banking in Türkiye have been temporarily eliminated.

Given the developments in other regions such as Asia-Pacific and the Gulf, the market share of participation banking in Türkiye has been marginal, only reaching 9 per cent of the entire Turkish banking sector as of 2022. Internationally, the total assets of participation banks (PBs) within the geographic spread of Islamic finance, covering its core markets of the Gulf and Asia-Pacific, ranked eighth, with a market share of 2 per cent of global Shari'ah-compliant assets (The Banker, 2023). The small market share and persistently sluggish growth of PBs are somewhat explained by the political economy and behavioral approach in the period before 2002. It has also been debated that this unsatisfactory level of PBs has its roots in practices that have aroused doubts in religious people's minds about whether PBs are simply conventional banking products repackaged as being compliant with Islamic principles. For example, in participation banking practices, the extensive use of Murabaha rather than Mudarabah contracts has caused great disappointment among potential customers. This is because most transactions are based on the Murabaha principle, which is a simple markup and is not based on a risk-sharing mechanism. In other words, PBs appear to have oriented themselves toward a risk-shifting rather than a risk-sharing mechanism in lending to borrowers most in need of financing. Thus, conservative or ethically sensitive customers have not yet welcomed the retail banking products and services of PBs (Okumus, 2005; Okumuş et al., 2016). This is in line with the critical analysis of IFIs indicating that they have been attached to "efficiency" at the cost of equity-based economic activities, whereas IME (as the foundation and framework for IFIs) prioritizes social, economic, and financial optimality by emphasizing "equity-based economic activities" (El-Gamal, 2006; Zaman & Asutay, 2016; Çizakça, 2014).

Despite the positive effect of rapid digitalization on PB services delivered via online and mobile channels, PBs have not achieved their anticipated retail banking market share even today. It appears that they have increasingly committed themselves to investment banking products and services in the aftermath of the COVID-19 pandemic. Conversely, due to the sluggish growth in sukuk (Islamic bonds) issuances in key markets such as Malaysia and the Gulf region due to higher oil prices over the past couple of years, sukuk issuance continues to be one of the key drivers of growth in the participation banking sector in Türkiye. Sukuk issuances by PBs in 2022 grew by 89 per cent compared with the previous year, reaching 83.9 billion TL in 2022, which is approximately half the amount of the total sukuk issuance for the entire country (TKBB, 2023). This reflects the healthy appetite for sukuk issued by Türkiye in international Islamic markets. To meet the appetite for sukuk, PBs must reassure foreign investors further that their products fulfill the normative expectations of IME as articulated by MS.

The underlying philosophy of IME suggests that IFIs should serve as more than financial contracts because they represent a holistic approach to financing in society. As such, PB practices must serve the developmental aims of society by providing financial means for developing society rather than serving the financial markets. This embedded principle of PB financing in the real economy is a vital feature. In particular, PBs in Türkiye can play an important role in closing the financing gap for small and medium-sized enterprises (SMEs), which constitute 99.8 per cent of all businesses and provide three-quarters of jobs. SMEs lack access to external financing for their business activities and have historically encountered greater challenges in obtaining external financing from banks compared with their larger counterparts. As suggested by Aysan et al. (2016) and Disli et al. (2023), demand for SME financing in Türkiye is strong, with the potential for further advancement of PBs.

The apparent divergence in PB practices from the original paradigm of Islamic banking is the primary problem motivating this study. Another motivation is the socioeconomic atmosphere; the

disappearance of external negative dynamics in the country's dual banking system provides a suitable basis for the society to build trust and confidence in participation banking. Therefore, elucidating the performance of PBs from an MS perspective will contribute to achieving sustainable trust and confidence toward PBs within the community. A further motivation is environmental, social, and governance (ESG) concerns, which have become a more prominent feature of global banking and finance in recent years. The ethical proposition of PBs means that their products and services should appeal to customers of all faiths and none as banking customers are increasingly seeking for an ethical, responsible way to invest. Increased attention is being paid to the overlap of such standards with those set out in Islamic banking or IFIs as well as PBs. Therefore, revealing the extent to which PBs meet this expectation based on ESG values will serve as a benchmark for potential customers who are distant from PBs due to their beliefs and prejudices or those from different faiths who are ethically sensitive.

Most studies have assessed bank selection criteria, product/service quality, satisfactory relationships, and their effects on PB image and loyalty as well as customer awareness (Asutay & Ergenç, 2013; Dirican, 2016; Farhoud & Görmüş, 2021; Furuncu & Çam, 2021; Okumus, 2005; Okumuş et al., 2016; Eyceyurt Batir et al., 2017; Özdemir, 2019). However, PB performance within a dual banking system has remained relatively unexplored. Therefore, this study fills the research gap regarding MS and PBs, serving as a reference point for scholars in this field. To the author's knowledge, this is the first study to measure the performance of all PBs in Türkiye based on the MS framework.

Measuring the performance of PBs must differ from measuring that of conventional banks as the methodology is expected to reflect IME axioms while Shari'ah injunctions are embedded in PB activities (Aksak & Asutay, 2015; Ammar et al., 2023; Antonio et al., 2012; Bedoui, 2012; Hameed et al., 2004; Hudaefi & Badeges, 2021; Kuppusamy et al., 2010; Mergaliyev et al., 2021; Mohammed et al., 2008; Sencal & Asutay, 2021). Therefore, this study explores the extent to which PBs achieve the goals of Shari'ah based on the comprehensive yardstick of the Maqasid al-Sharia'ah Performance Index (MSPI). Explaining the sources of the differences in MSPI among PBs is also a motivation for this research. The results will eventually help PBs achieve the ultimate goal of transforming themselves into leading sustainable IFIs. Furthermore, this study will partially elucidate the deep-rooted socio-political internal dynamics that might have decelerated the development of PBs and reveal different shortcomings to ensure the well-being of all parties in the finance sector.

This paper is structured as follows. The motivational background of this study is discussed in Section 1. In Section 2, the concept of the MS is briefly presented. In Section 3, empirical studies evaluating IFI performance based on MS are reviewed. The data and methods used to develop the MSPI yardstick are explained in detail in Section 4, and the empirical results are outlined in Section 5. Finally, the outcomes of this study are summarized and discussed in Section 6.

2. Concept of maqasid al-Shari'ah

Maqasid al-Sharia'ah is a compound term formed using two words: *Maqasid* (sing. Maqsid or maqsad) and *al-Shari'ah*. The word *maqsad* in Arabic refers to purpose, intent, objective, or wisdom. The second word, *al-Shari'ah* or *Shari'ah*, refers to Islamic law in its restricted usage. MS is often translated as the goal of Shari'ah; it can be interpreted that Shari'ah comprises a set of Islamic laws and moral codes. Based on this interpretation, the scope of MS can be defined as covering every pillar of human life, including social, personal, economic, and intellectual (Siddiqi, 2004; Bedoui & Walid, 2014).

MS theory was developed over centuries until the time of Abu al-

Ma'ali al-Juwaini (d. 476 AH), when a conscious attempt was made to begin formulating this theory. Subsequently, his student Abu-Hamid al-Ghazali (d. 505 AH), followed by other scholars such as Imam al-Shatibi, systematized, rearranged, and developed the injunctions in a manner that came to be accepted by all those who came after them (Al-Raysuni, 2005; Siddiqi, 2004).

Two main streams have developed to classify the general aspects of the essence of MS. First, the Ghazalian interpretation affirms that the ultimate goal of Shari'ah is to achieve benefits for human beings on earth. However, scholars have criticized this interpretation because of its individual-centered objectives and lack of social consideration. The other classification is based on Ibn-Ashur's interpretation, which some Islamic jurists consider to be a superior interpretation as it posits that all rulings of Shari'ah have wise purposes and that all these purposes can be summarized in two actions: drawing benefits to humans (*jalb al-masalih*) and preventing harm caused by humans (*dar'a al-mafasid*) (Siddiqi, 2004). As such, this interpretation extends its scope to include the challenges of today's modern world, such as social justice and equity. A more contemporary approach by Asutay (2012) maintains that despite the existence of several different views of MS among Islamic theorists, a common treatment summarizes it as the "realization of well-being of all the stakeholders." Mergaliyev et al. (2021) reinterpreted and extended *maqasid* as a dynamic construct beyond a safeguarding role, proposing an operational framework for IFIs located within the social formation of an Islamic normative world rather than the mechanism of a market system. Overall, classic and contemporary Muslim jurists have agreed upon the contribution of MS in promoting welfare for humankind (Chapra, 2007; Hudaefi & Badeges, 2021).

Maqasid is conventionally classified based on the hierarchy of necessities and the strength of their purposes. According to the traditional classification of MS, social necessities are categorized into three hierarchical levels with the aim of elevating social welfare: (1) necessities (*Daruriyyat*), (2) conveniences (*Hajiyyat*), and (3) refinements (*Tahsiniyat*). Necessities refer to the fundamental human requirements in the hierarchy of the *maqasid*; they represent the minimum essentials that are indispensable for the survival of human beings and for meaningful life. Without these necessities, human life on earth is in danger, resulting in a chaotic society. The Ghazalian definition of MS is interpreted as "human well-being" and articulated as "safeguarding their faith (*dīn*), their self (*nafs*), their intellect (*ʿaql*), their posterity (*nasl*), and their wealth (*māl*)" (Al Ghazali, 1937 as cited in Mergaliyev et al., 2021). Even today, the most common reference to *maqasid* in Islamic economics is in the Ghazalian definition, which establishes the theoretical basis of this study. Notably, recent studies have attempted to scrutinize misconceptions about the objectives of Islamic law that complicate its actualization in Islamic finance. These studies formulate a conceptual framework that facilitates the actualization of MS in banking product design and consumption within IFIs (Al-Nahari, et al., 2022; Monawer et al., 2022).

3. Previous research on IFI performance based on *maqasid* al-Sharia'ah framework

Scholars in earlier studies had to resort to one-dimensional methods, such as the financial ratio, in measuring IFI performance because they did not have any multidimensional methods developed in hand at that time (Mohammed et al., 2008; Mengaliyev et al., 2021). Nevertheless, the issue of developing an appropriate yardstick to measure performance has always been on the agendas of experts. Eventually, IFI performance based on MS as a benchmark was pioneered by Mohammed et al. (2008), who constructed it based on Abu Zaharah's three-dimensional MS theory.

Mohammed et al. (2008) translated the MS theory into quantifiable indicators, resulting in the construction of MSI to evaluate IFI performance. Such MS-based performance evaluation methods for IFIs have been further developed and validated in several other studies (Asutay & Harningtyas, 2015; Mohammed & Taib, 2015; Mergaliyev et al., 2021; Hudaefi & Noordin, 2019; Alam et al., 2020; Amin & Ariffin, 2021; Hudaefi & Badeges, 2021). These subsequent studies share the research objectives and methodologies of Mohammed et al. (2008). Most of these studies either tested the dimensions and/or measurements by updating the indicators used or employed a mixed methodology combining qualitative and quantitative analyses in a single research study. The most commonly used datasets in these studies comprised data from either GCC countries or Malaysia. For example, Amin and Ariffin (2021) examined the level of Sharia'ah compliance achieved by Malaysian Islamic banks using the Sharia'ah disclosure index, including Sharia'ah disclosure in their annual reports. Similarly, Tarique et al., (2020) aimed to validate an MS-based performance evaluation model for IFIs by adopting a prototype evaluation model refined through in-depth interviews with Islamic authorities. Hudaefi and Noordin (2019), in contrast, distinguished themselves by discussing the pioneering studies by Chapra (2007), Mohammed et al. (2008), and Haniffa and Hudaib (2007), providing a holistic view of IFI performance measurement and leading to the development of a yardstick in the form of the Islamic Moral Performance Index. A similar study by Alhammedi et al. (2022) suggested that conventional performance measurements do not truly reflect the higher ethical objectives proposed by IME and therefore create a deficiency in attaining MS performance in IFIs. Based on empirical evidence, the study also revealed a financial cost to achieving MS for IFIs.

Asutay (2012) defines the characteristics of the ideal form for IFIs with a holistic view based on Islamic values and norms: (a) It is expected that IFIs endogenize the interests of all stakeholders beyond narrow shareholder maximization objectives, (b) IFI activities should be akin to ethical investing beyond just eliminating *riba* and *gharar*. In other words, their operations should be based on *Mudharabah* and *Musharakah* rather than simply *Mudharabah*, because the former facilitates entrepreneurial activities, leading to greater stability in financial markets; (c) IFI transactions should be based on assets linking the monetary and real economies to articulate their embedded financing propositions; and (d) IFIs are expected to contribute to the equitable distribution of wealth, actualize Islamic ethics, embed Islamic values in their business models, and endorse the IME and Islamic worldview. Therefore, evaluating IFI performance must differ from measuring the performance of conventional financial institution (Antonio et al., 2012; Bedoui, 2012; Hameed et al., 2004; Kuppusamy et al., 2010). In other words, it is necessary to have a special instrument to measure the performance of Islamic banking in line with the objectives of Shari'ah (Mohammed et al., 2008). Therefore, in the discourse on Islamic banking and finance, MS has been viewed as the principal concept driving the establishment of IFIs. Thus, MS theory has become a benchmark for measuring the level at which IFIs have fulfilled the value of Shari'ah (Hudaefi & Badeges, 2021; Zaman & Asutay, 2016).

Due to the popularity of ethical or green finance as a research topic among scholars, the number of studies aiming to explore the performance of financial institutions from ethical/Islamic and financial perspectives has skyrocketed in recent years. For instance, Mardini et al. (2023) dealt with the performance evaluation of MS measured by the impact of mergers, which opens a new perspective on global studies of IFIs. Using a comparative quantitative method, the study revealed that the performance of Islamic banks in Indonesia, based on the MS framework in the premerger period, was below average, whereas

postmerger performance was above average. In conclusion, they stated that mergers among Islamic banks positively affect the performance of Islamic banks.

Ammar et al. (2023) proposed a model that yields a performance index for Islamic banks from stakeholders' viewpoints based on the MS framework and sustainability. By adopting a multiattribute utility approach to index development, the study suggests that Islamic banks lack Islamic normative aspects and have low adherence to sustainability practices. Although a growing trend in the application of MS for developing performance measurement has been observed over the past few years, it reveals that MS models used for IFI performance are to be developed further both in theoretical and empirical manners, explaining the strengths and weaknesses of contemporary MS performance models (Mahyuddin & Rosman, 2022). Likewise, Naja (2023) analyzed the performance of Islamic banking in Malaysia versus Indonesia by constructing an MS index and adopting a T-test as well as a panel data model to compare Malaysian and Indonesian Islamic bank performance. The study highlights that the MS framework is vital to evaluating Islamic banking performance because any measurement based on MS includes nonfinancial indicators.

More than four decades after the initiation of participation banking in Türkiye, PB performance measurement has been undertaken using conventional methods, such as the financial and economic value-added ratios used in the performance methodologies of CAMELS, ELECTRE, CRITIC, PROMETHEE, and TOPSIS; moreover, PB performance has always been compared with that of conventional banks (Akyüz et al., 2020; Arıcan & Çetin, 2018; Batır & Volkman, 2017; Bayram, 2021; Beck et al., 2010; Okumuş et al., 2016; Tetik & Şahin, 2020; Öndeş et al., 2020). With the enforcement of the Communiqué on Compliance with the Principles and Standards of Interest-free Banking (*Communiqué*) in 2019 by the Banking Regulation and Supervision Agency, the current and planned activities of PBs and any new products launched by such banks are required to comply with interest-free banking standards. Notably, the establishment of an advisory committee that would act as a nationally centered Shari'ah Board is also one of the novelties of the *Communiqué*. To this end, the *Communiqué* mandates PB internal audit departments to conduct audits in accordance with interest-free banking standards that came into effect in September 2019. Therefore, 2019 is considered a watershed year in the history of participation banking in the sense that PBs became legally responsible for their stakeholders, ensuring that PB products meet interest-free banking standards. This justifies the period considered in this study.

It is important to note the extensive empirical literature on PBs in Türkiye that aims to reveal the level of customer awareness, loyalty, and satisfaction from participation banking (Asutay & Ergenç, 2013; Dirican, 2016; Farhoud & Görmüş, 2021; Furuncu & Çam, 2021; Okumus, 2005; Okumuş et al., 2016; Özdemir, 2019). In contrast, studies evaluating PB performance within the context of MS have been few and far between, and most studies that have applied an MS framework to the banking sector to measure performance according to the objectives of Shari'ah have contained only one or two PBs from Türkiye in the sample selected for empirical work (Asutay & Harningtyas, 2015; Hudaefi & Noordin, 2019; Mergaliyev et al., 2021; Asutay & Sidek, 2020; Abdullah & Asutay, 2021; Ahsan & Qureshi, 2022). Therefore, none of these studies reveal how far PBs in Türkiye have adopted the axioms of MS in performance measurement because they do not provide a holistic perspective for measuring PB performance.

4. Data and methods

The population for the empirical study was PBs operating in Türkiye, and this study used published data from annual reports of all PBs in Türkiye over 3 years, i.e., 2019 to 2021. Therefore, the dataset

generated for this empirical analysis represents the population rather than the selected sample. As of 2021, six PBs were providing interest-free banking products in Türkiye, three of which were state-owned, whereas the rest were privately owned.

4.1. Methods for constructing *maqasid Shari'ah* performance index based on entropy weights

Similar to Asutay and Harningtyas (2015), Hudaefi and Noordin (2019), Mergaliyev et al. (2021), Alhammadi et al. (2022), Hudaefi and Badeges (2021), and other relevant studies, we applied a mixed method that employed qualitative and quantitative inquiry of the content analysis of PB annual reports and websites to explore the extent to which PBs in Türkiye have achieved MS in their performance measurement.

First, the study uses content analysis to extract information from annual reports that are publicly available on PB websites. To generate MS- and performance-related data, a qualitative method based on text mining was applied to these annual reports. Table A.1 (Appendix A) illustrates the modified and adjusted MSPI variables (elements, dimensions, and performance indicators) for PBs. First, the PBs in Türkiye have unique features that distinguish them from their counterparts operating worldwide, and the study period was dominated by the COVID-19 pandemic. Second, a quantitative method was applied to quantify social, ethical, and financial indicators, leading to the construction of the MSPI for PBs. Thus, after extracting information related to the MSPI from the annual reports of PBs, an index was constructed based on 28 modified indicators, 14 dimensions, and 18 elements. The development of the MSPI was based on the pioneering study by Mohammed et al. (2008) and adopted Sekeran's method to operationally define MS objectives into measurable items.

According to the method proposed in Sekeran (2003), concepts (C) are broken down into observable characteristic behaviors termed dimensions (D). The dimensions are then further broken down into measurable behaviors, which are named elements (E). The model proposed by Sekeran is illustrated in Fig. 1 below.

The five broad objectives of MS (faith, self, intellect, posterity, and wealth) using Sekeran's method were operationally defined. Each objective or concept (C) was then translated into broad characteristics of dimensions (D) and finally into measurable behaviors or elements (E) as follows.

To quantify the MSPI, a solution method in multiple attribute decision-making (MADM), i.e., simple additive weighting (SAW), was used, following Mohammed et al. (2008). Based on a simple addition score, the SAW as a value function represents the goal under each criterion multiplied by particular weights. In the next step, the weights are multiplied by the related criteria values for each alternative and then summed across alternatives. Therefore, the actual values of criteria weights significantly influence the determination of the importance of alternatives and selection of the best solution (Trinkuniene et al., 2017; Vinogradova et al., 2018; Alam et al., 2020; Mursyid et al., 2021). The weights of the criteria can be subjective, objective, or mixed (Liu, Dong, Liang, Chiclana, & Herrera-Viedma, 2019). Subjective weights determined by specialists and experts are commonly used to solve practical problems. Many methods have been developed to determine criteria weights based on expert evaluations of their significance (weight). These weights are the most important for assessing results because they express the opinions of highly qualified experts with extensive experience (Antonio et al., 2012; Asutay & Harningtyas, 2015; Hudaefi & Noordin, 2019; Mohammed & Taib, 2015). In contrast to studies in which the weighted average for each alternative is defined by Islamic banking experts, jurists, and economists, this study adopts an entropy-based weighting method to calculate the weights for each attribute. First, weight-related opinions of Middle Eastern and Malaysian experts may

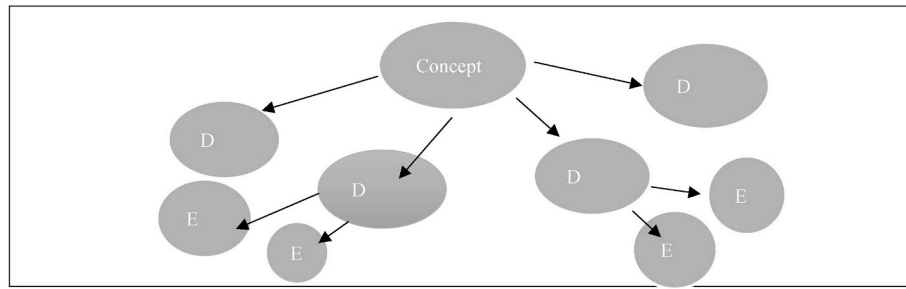


Fig. 1. Concept of operationalization.

not capture the unique features of Turkish participation in banking. More importantly, researchers should consider cultural and cross-cultural differences (Sekaran, 2003). Second, this study deals with all PBs operating in the interest-free banking sector that contain a certain amount of information regarding the population. Therefore, this method is particularly useful for elucidating the differences between datasets. In other words, it assesses the structure of the data array. The weights obtained using the entropy method reflect the data structure and inhomogeneity of the PBs. If the values of a criterion do not differ considerably (approximately zero), the data are considered homogeneous. Consequently, homogeneous data do not have a strong influence on evaluation (Vinogradova et al., 2018). The weights calculated using the entropy method do not depend on the criterion for measuring units because the units are used in the evaluation after normalization. Thus, the criterion weight was associated with the dominance units or significance degree of a single criterion value (Zhou et al., 2013). In this case, the criterion with the largest weight is the highest weight ratio. In addition, if all values were the same for one criterion, the criterion was eliminated from the dataset (Erol & Ferrell, 2009).

In contrast to the subjective weights used in the SAW method based on predefined values and preference weights (Putra & Punggara, 2018), the objective weights of the criteria generated by the entropy method were employed in this study. In the calculation of entropy weights, the structure of the data array was considered to determine the actual degree of dominance of each criterion over the evaluation period studied, resulting in objective weights. Therefore, entropy-based weights are employed in such a study that focuses on the population of participation banking rather than a selected sample of PBs.

As a result, the developed and modified elements and performance indicators based on the Gazalian MS (promoted by Chapra, 2007) framework for PBs in Türkiye are presented in Appendix A, Table A.1.

4.2. Determining the entropy-based weights for constructing the maqasid al-Shari'ah performance index

The weights are determined using the entropy method proposed by Channon (1948) as follows (Hwang & Yoon, 1981):

Let the decision matrix D of m alternatives and n criteria be

$$D = \begin{matrix} & \begin{matrix} x_1 & x_2 & \dots & x_n \end{matrix} \\ \begin{matrix} A_1 \\ A_2 \\ \vdots \\ A_m \end{matrix} & \begin{bmatrix} x_{11} & x_{12} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ x_{m1} & x_{m2} & \dots & x_{mn} \end{bmatrix} \end{matrix}$$

In step 1, the values of the criteria are normalized by the following equation:

$$p_{ij} = \frac{x_{ij}}{\sum_{i=1}^m x_{ij}}, \forall_{i,j}. \quad (1)$$

In step 2, the entropy level of each criterion is calculated:

$$E_j = -k \sum_{i=1}^m p_{ij} \ln p_{ij}, \forall_j, \quad (2)$$

where k represents a constant:

$$k = \frac{1}{\ln m}, \quad (3)$$

which guarantees that $0 \leq E_j \leq 1$.

In step 3, the extent of variation of each criterion is determined as follows:

$$d_j = 1 - E_j, \forall_j. \quad (4)$$

Normalized d_j values are taken for the weights obtained using the entropy method:

$$W_j = \frac{d_j}{\sum_{j=1}^n d_j}. \quad (5)$$

Table 1
PB performance: MSPI scores and ranking.

PBs	2021		2020		2019		3-year average	
	MSPI	Ranking	MSPI	Ranking	MSPI	Ranking	MSPI	Ranking
Ziraat	0.0446	6	0.0876	5	0.0232	6	0.0518	6
Vakıf	0.0607	5	0.1564	1	0.1148	4	0.1106	3
Emlak	0.0850	4	0.0452	6	0.1877	3	0.1059	4
Türkiye Finans	0.0976	2	0.1218	2	0.1932	2	0.1375	1
Kuveyt Türk	0.0857	3	0.1079	3	0.2183	1	0.1373	2
Albaraka	0.1018	1	0.0967	4	0.0813	5	0.0933	5
3-year average	0.0792		0.1026		0.1364		0.1061	

Source: Author's own calculations.

Table 2
MSPI scores of PB performance on objective basis.

	FAITH (PIO1)					SELF (PIO2)					INTELLECT (PIO3)					POSTERITY (PIO4)					WEALTH (PIO5)				
	2021	2020	2019	Ave.		2021	2020	2019	Ave.		2021	2020	2019	Ave.		2021	2020	2019	Ave.		2021	2020	2019	Ave.	
Ziraat	0.0062	0.0071	0.0096	0.0076		0.0048	0.0004	0.0146	0.0031		0.0016	0.0016	0.0003	0.0012		0.0096	0.0248	0.0135	0.0160		0.0223	0.0537	0.0144	0.0302	
Vakıf	0.0235	0.0282	0.0413	0.0310		0.0141	0.0821	0.0032	0.0310		0.0010	0.0010	0.0004	0.0008		0.0002	0.0002	0.0171	0.0059		0.0218	0.0448	0.0592	0.0419	
Emlak	0.0226	0.0204	0.0160	0.0197		0.0069	0.0020	0.0039	0.0043		0.0010	0.0029	0.0022	0.0020		0.0212	0.0008	0.0709	0.0309		0.0333	0.0191	0.0947	0.0491	
Türkiye Finans	0.0338	0.0406	0.0755	0.0500		0.0104	0.0137	0.0028	0.0090		0.0009	0.0025	0.0000	0.0011		0.0290	0.0085	0.0114	0.0163		0.0235	0.0565	0.1036	0.0612	
Kuveyt Türk	0.0218	0.0283	0.0454	0.0318		0.0194	0.0146	0.0254	0.0198		0.0013	0.0018	0.0006	0.0013		0.0099	0.0212	0.0100	0.0137		0.0332	0.0420	0.1369	0.0707	
Albaraka	0.0084	0.0104	0.0140	0.0110		0.0531	0.0010	0.0036	0.0192		0.0013	0.0014	0.0009	0.0012		0.0137	0.0241	0.0179	0.0186		0.0253	0.0597	0.0450	0.0433	
3-year average	0.0194	0.0225	0.0336	0.0252		0.0181	0.0190	0.0030	0.0134		0.0012	0.0019	0.0007	0.0013		0.0139	0.0133	0.0235	0.0169		0.0266	0.0460	0.0756	0.0494	

Source: Author's own calculations.

4.3. Developing the maqasid al-Shari'ah performance index based on a simple additive weighting approach with entropy weights

The MSPI based on SAW with entropy weights for PBs is developed as follows:

$$PIO1 = W_1^1 (w_1^1 x PI_1^1 + w_1^2 x PI_1^2 + w_1^3 x PI_1^3 + w_1^4 x PI_1^4), \quad (6)$$

where,

O1 = the first of the MS, which is faith;

W_1^1 = Weight assigned to O1;

w_1^1 = weight generated based on the entropy method for the first element of O1;

w_1^2 = weight generated based on the entropy method for the second element of O1;

w_1^3 = weight generated based on the entropy method for the third element of O1;

w_1^4 = weight generated based on the entropy method for the fourth element of O1;

PI_1^1 = Evaluation of the performance indicator corresponding to w_1^1 of O1;

PI_1^2 = Evaluation of the performance indicator corresponding to w_1^2 of O1;

PI_1^3 = Evaluation of the performance indicator corresponding to w_1^3 of O1; and

PI_1^4 = Evaluation of the performance indicator corresponding to w_1^4 of O1.

Furthermore,

$$PIO1 = PI11 + PI12 + PI13 + PI14, \quad (7)$$

where

$$PI11 = W_1^1 x w_1^1 x PI_1^1;$$

$$PI12 = W_1^1 x w_1^2 x PI_1^2;$$

$$PI13 = W_1^1 x w_1^3 x PI_1^3; \text{ and}$$

$$PI14 = W_1^1 x w_1^4 x PI_1^4).$$

The overall performance indicators for the five MS objectives of each bank constitute an individual MSPI:

$$MSPI = PIO1 + PIO2 + PIO3 + PIO4 + PIO5. \quad (8)$$

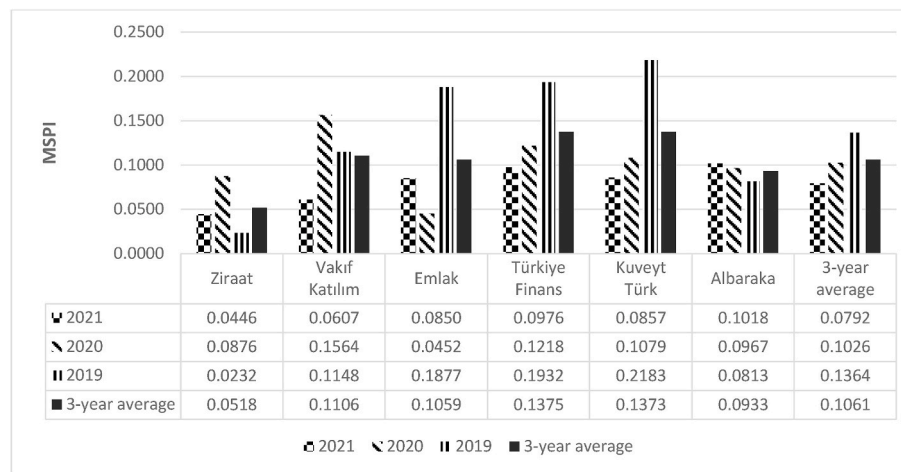
In summary, the MSPI for an individual bank is the sum of its performance indicators related to Objectives I, II, III, IV, and VI of the MS (Hudaefi & Noordin, 2019; Mohammed et al., 2008).

As a result, the measurement of MS performance is performed as follows.

1. Determine the Es and PIs based on the Gazalian MS (promoted by Chapra) framework for PBs.
2. Calculate PIs for PBs.
3. Develop the entropy weights to be used to calculate the MSPI for PBs.
4. Construct and calculate the MSPI for PBs.
5. Evaluate the performance of PBs and the entire sector for the period studied.

5. Results

Table 1 illustrates the overall MSPI scores and rankings of the PBs on an annual basis and a 3-year average base. Privately owned Türkiye Finans at 13.7 per cent (highest) and state-owned Ziraat at 5.1 per cent



Source: Author's own presentation.

Fig. 2. PB performance based on individual MSPI scores.

(lowest) represented the MSPI limits based on the 3-year average of MSPI. The Vakıf Participation Bank ranks third with an MSPI value of 0.1106, followed by Emlak, which ranks fourth with an MSPI value of 0.1059. Albaraka ranks fifth, followed by Ziraat, with values of 0.0933 and 0.0518, respectively. Furthermore, the range of the 3-year mean MSPI is between 0.0518 and 0.1375, with a 0.1061 average for the entire participation banking sector.

Table A.1 lists the Ds, Es and PIs for the years 2019, 2020, and 2021, and Table A.2 lists the corresponding entropy weights. As shown in Table 2, a value of zero in the columns indicate that the related numerical figure is nearly zero. Notably, some Es and PIs were omitted from the entropy weight calculations; however, they were added to the SAW calculations as zero.

Fig. 2 shows the performance trend of all PBs in terms of MSPI scores for 2019, 2020, and 2021. Although privately owned PBs show a downward trend, it is not possible to say that there is a trend in state-owned PBs. Considering the 3-year average MSPI scores, the performance of the six PBs operating in the sector has decreased by almost half. According to these results, it would not be wrong to state that the performances of PBs were significantly negatively affected by the Covid-19 pandemic.

Table 2 shows the performance success of each PB in terms of faith, self, intellect, posterity, and wealth which are defined as the objectives of Shari'ah from the Ghazalian perspective. When we evaluated each PB based on MS, which includes *faith*, *self*, *intellect*, *posterity*, and *wealth*, the following results were obtained:

In the enrichment of *faith* (PIO1), Türkiye Finans achieved the highest performance with a value of 0.05 followed by Kuveyt Türk and Vakıf Bank. These results indicate that the performance of these banks on this objective basis is high because the ratio of P/L accounts in total funds is higher than that of other banks.

When PBs are assessed based on *self* (PIO2), the highest MSPI score (0.0310) was achieved by Vakıf, followed by Kuveyt Türk (0.0198) and Albaraka (0.0192). The lowest MSPI score belonged to state-owned Ziraat, indicating that it lacks the disclosure of its social activities and/or social involvement.

In enrichment of *intellect* (PIO3), Emlak and Kuveyt Türk had the best performance with scores of 0.002 and 0.0013, respectively. These banks contributed to employee education and research over the period studied when the COVID-19 pandemic had become widespread.

Regarding the goal of *prosperity* (PIO4), Table 2 shows that Emlak earned the highest score of 0.0309, followed by Albaraka (0.0186) and

Türkiye Finans (0.0163). This suggests that the banks had the highest engagement in agricultural development; moreover, public financing of economies occurs through capital markets.

In the development and expansion of *wealth* (PIO5), Kuveyt and Türkiye Finans disclosed the amounts of loans given, restructured, and frozen based on maturity. Consequently, Kuveyt Türk was ranked first with an MSPI score of 0.0707, followed by Türkiye Finans and Emlak with values of 0.0612 and 0.0491, respectively.

As shown in Table 2, the highest overall mean objective was *wealth* (5 per cent), followed by *faith* (2.5 per cent), *posterity* (1.7 per cent), *self* (1.3 per cent), and *intellect* (0.12 per cent). These results demonstrate that participation banking performed highest on the MS objective of wealth.

6. Conclusions

In a dual banking system, PBs, as Islamic entities, are expected to accomplish Islamic principles, morals, and ethical norms—in other words, they are required to align with the higher goals of MS. The widespread criticism of PBs in Türkiye has prevailed since their introduction to the Turkish banking sector in the mid-1980s. Owing to intense competition, PBs have been found to concentrate on profitability and efficiency rather than achieving compliance with MS. Therefore, it is essential to select appropriate, measurable, and meaningful variables to develop performance evaluations for PBs. To achieve this, an MSPI based on the Ghazalian perspective of MS was developed.

Based on MSPI scores and ranking of individual PBs on 1-year and 3-year average bases, privately owned Türkiye Finans demonstrated the highest profit and loss sharing accounts in total funds and better disclosure of social, ethical, and environmental responsibilities compared with the state-owned Ziraat, which had the lowest score on MSPI. Therefore, privately owned PBs seem to have been more successful in complying with MS than state-owned ones. In addition, privately owned PBs adapted themselves faster in terms of benefiting society during the Covid-19 pandemic, thus making more efficient use of this period.

Considering the period studied, the downward MSPI trend of the PBs in general might suggest that PBs moved further away from participation banking products based on risk sharing as well as the goals of MS. Given that the highest overall mean PI is *wealth*, PBs are more focused on profitability and efficiency and may have become market-oriented financial organizations in the dual banking system. In contrast, the

fact that the objectives of *intellect* and *self* are at the bottom in terms of MSPI scores shows that they have been insufficient in supporting education, research, and social welfare.

To this end, the empirical evidence based on the data and methodology used in this study further shows that PBs do not achieve high scores on the suggested MSPI. This can be interpreted as representing a lack of Islamic normative aspects and low adherence to sustainability practices.

6.1. Practical implications

It is suggested that PBs should refer to *conveniences* (*Hajiyat*) and *refinements* (*Tahsiniyat*) rather than *necessities* (*Daruriyyat*). PBs should engage themselves further with the plans toward improving ESG credentials. As such, they should firmly commit themselves to sustainability across multiple niche areas, including renewable energy financing, low-cost housing, financing for lower-income farmers and SMEs at preferential rates, and reducing the gender gap in access to finance in the country. Furthermore, the PBs are expected to enhance their outreach into rural areas by developing custom-made programs, involving workshops on financial literacy about participation banking, and developing better agricultural farm management techniques.

6.2. Social implications

PBs should undertake greater efforts to develop a sustainable inter-active relationship with their stakeholders as their customers are

unaware of the corporate social responsibility projects initiated by PBs in the fields of education and environment to increase social welfare. Furthermore, PBs should urgently adopt strategies to disclose their activities in compliance with the MS framework. In this way, they can eliminate the negative perception that exists among people who are skeptical about PB practices, eventually creating a positive impact on the entire participation banking sector.

6.3. Research limitations and implications

This study has certain limitations, including its inability to refine the dimensions and elements of PBs through in-depth interviews with interest-free banking scholars and participation banking experts in Türkiye. Thus, further research is needed to confirm and validate the dimensions, elements, and performance indicators necessary to operationalize MS components. Moreover, the use of software programs to apply content analysis may provide a more reliable or confirmative analysis of PB performance based on the MS framework.

Declarations of interest

None.

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Appendix A

Table A.1

Maqasid al-Shari'ah Performance Index Variables for PBs: Dimensions, Elements, and Performance Indicators

Concept	Dimensions (D)	Elements (E)	Performance Indicators (PI)	Modified Elements (ME)	Modified Performance Indicators (MPI)	Source
Faith	D1: Nonnegative elements	E1: Interest-free products	Interest-free banking/total income	E1: Interest-free products	PI11: Interest-free income/total income PI12: Total off-balance-sheet accounts/total assets	AN AN
	D2: Creating awareness of Islamic Banking	E2: Publicity	Publicity expense/total expense	E3: Publicity E4: Publicity through other channels	PI13: Publicity expense/operational expense PI14: PBA Fees/operational expense	AN AN
	D3: Justice	E3: Charity	Charity gained/charity distributed			AN
		E4: Employee benefit	Employees' expenses/total income	E5: Employee rights and benefits E6: Top Management benefits E7: Employee expenses E8: Employees Financing	PI21: No. of personnel/provisions for employees' (legal) rights and benefits PI22: BoDs' expenses/personnel expense PI23: Total personnel salary paid/operational expense PI24: Credit cards and credits given to employees/Net profit	AN AN AN AN
Self (nafs)	D4: Removal of poverty	E5: Zakat fund	Zakat paid/net assets	E9: Zakat fund	PI25: Distributed Zakat/Net assets	AN
	D5: Job opportunities	E6: Total no. of branches	Total no. of branches this year/Total no. of branches in previous year	E10: Tax E11: Contactless banking E12: Digital banking	PI26: Tax due/Net income PI27: No. of ATM this year/no. of ATM previous year PI28: No. of active clients in digital banking, per cent	AN AN AN & of Banks Association
	D6: Education	E7: Education grant	Education grant/total income	E13: Education grant	PI31: Training to personnel/training to personnel, hour/person	AN
	D7: Research	E8: Research expense	Research expense/total income	E14: Research expense	PI32: Research expense//total income	AN
Intellect ('aql)	D8: Health Environment	E9: Agricultural financing	Bay al salam financing/total financing	E15: Agricultural credits/Total credits E16: Public finance E17: Capital market financing to the economy E18: Training	PI41: Agricultural (cash and noncash) credits/Total credits PI42: Government securities in bank portfolios/total funds used PI43: Sukuk issued this year/sukuk issued previous year PI44: Training expense//Total expense	AN AN AN & Central Bank AN
	D9: Moral development	E10: Training	Training expense/total expense			

(continued on next page)

Table A.1 (continued)

Concept	Dimensions (D)	Elements (E)	Performance Indicators (PI)	Modified Elements (ME)	Modified Performance Indicators (MPI)	Source
Wealth	D10: Affordable products and services	E11. Nonperforming financing	NPP/total financing	E19: Nonperforming loans	PI51:Frozen receivables/Total funds used	AN
	D11: Profit sharing	E12. Mudarabah financing	Mudarabah financing/total financing	E20: Credits except for Murabaha credits	PI52:Credits with one year + maturity/Total credits	AN
		E13. Musharaka financing	Musharakah financing/total financing	E21: Musharaka financing	PI53:Musharaka financing/Total financing	AN
	D12: Restructured financing	E14: Restructured mudarabah financing	Total restructured mudarabah financing/total restructured financing	E22: Restructured mudarabah financing	PI54:Total restructured mudarabah financing/total restructured financing	AN
				E23: Restructured agricultural (Selem) credits	PI55:Agricultural NPL/Total agricultural credits	AN
		E15. Restructured musharakah financing	Total restructured musharakah financing/total restructured financing	E24: Restructured musharakah financing	PI56:Total restructured musharakah financing/total restructured financing	AN
				E25: Assurance fund	PI57: Households' current and P/L deposits covered by Assurance Fund/Households' current and P/L deposits <i>not covered</i> by Assurance Fund	AN
	D13: Earning ability	E16: Assets profitability	Net income/total assets			
		E17: Equity profitability	Net income/total equities	E26: Equity profitability	PI58: Net Income/Total equity	AN
	D14: Management quality	E18: Operational efficiency	Operating expense/operating revenue	E27: Operational efficiency	PI59: Operational Expenses/Operational Income	AN
				E28: Management quality in compliance with interest-free banking	PI510: No. Of Advisory Committee meetings this year/no.of Advisory Committee meetings previous year	AN

Source: Hudaefi & Noordin, 2019, Tarique et al. 2020, modified by the Author (MS promoted by Chapra, 2007). Note that “AN” denotes annual reports of PBs and/or web sites of the relevant financial institutions.

Table A.2
Calculated Entropy Weights of PB Performance Indicators

2021 wj	2021 Dj	2021 Eij	2020 wj	2020 Dj	2020 Eij	2019 wj	2019 Dj	2019 Eij	
0.00074165	0.00244545	0.99755455	0.00030280	0.00096921	0.99903079	0.00034604	0.00128369	0.99871631	PI11
0.02345952	0.07735339	0.92264661	0.02531670	0.08103456	0.91896544	0.03528656	0.13090189	0.86909811	PI12
0.03895362	0.12844227	0.87155773	0.03612616	0.11563382	0.88436618	0.01977595	0.07336247	0.92663753	PI13
0.18600427	0.61331429	0.38668571	0.19200068	0.61456228	0.38543772	0.16840178	0.62471683	0.37528317	PI14
0.02452777	0.08087575	0.91912425	0.02323697	0.07437770	0.92562230	0.01023002	0.03795009	0.96204991	PI21
0.02662884	0.08780361	0.91219639	0.03234794	0.10354039	0.89645961	0.04971317	0.18442000	0.81558000	PI22
0.08899048	0.29342947	0.70657053	0.00806387	0.02581111	0.97418889	0.01354242	0.05023804	0.94976196	PI23
0.08899048	0.29342947	0.70657053	0.06029799	0.20158849	0.79841151	0.05233104	0.19413143	0.80586857	PI24
0.00296124	0.00976413	0.99023587	0.00076121	0.00243652	0.99756348	0.02102617	0.07800038	0.92199962	PI26
0.02164340	0.07136507	0.92863493	0.00000340	0.00001088	0.99998912	na	na	na	PI27
0.14636054	0.48259651	0.51740349	0.18571469	0.59444185	0.40555815	0.26956498	1.00000000	na	PI28
0.00385152	0.01269968	0.98730032	0.01009415	0.03230970	0.96769030	na	na	na	PI31
0.02286779	0.07540226	0.92459774	0.03217885	0.10299917	0.89700083	0.05016962	0.18611328	0.81388672	PI41
0.03934196	0.12972275	0.87027725	0.03529027	0.11295828	0.88704172	0.06946529	0.25769404	0.74230596	PI42
0.04772025	0.15734860	0.84265140	0.08244992	0.26390850	0.73609150	na	na	na	PI43
0.02198158	0.07248015	0.92751985	0.02070990	0.06628896	0.93371104	0.04767571	0.17686166	0.82313834	PI57
0.02895116	0.09546104	0.90453896	0.01835206	0.05874189	0.94125811	0.01882583	0.06983781	0.93016219	PI51
0.00654086	0.02156728	0.97843272	0.00536864	0.01718413	0.98281587	0.00393977	0.01461530	0.98538470	PI52
0.11270777	0.37163281	0.62836719	0.17076009	0.54657467	0.45342533	0.13219647	0.49040668	0.50959332	PI510
0.02569232	0.08471563	0.91528437	0.01511880	0.04839275	0.95160725	0.03167751	0.11751345	0.88248655	PI58
0.00175959	0.00580192	0.99419808	0.00063027	0.00201739	0.99798261	0.00583167	0.02163365	0.97836635	PI59
0.03932338	0.12966150	0.87033850	0.04219263	0.13505158	0.86494842	na	na	na	PI510

Source: The Author's own calculations.

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